

TradeTrust : New approach to trade digitization with MLETR

ROLES OF IMDA

DIGITAL CHAMPION



Drive digitalisation across industries

Supporting a digitally enabled workforce

INDUSTRY DEVELOPER



Develop the digital tech and media industries as an engine of growth for Singapore

Foster a data ecosystem for the digital economy

ENABLER



Master-planner for connectivity, digital infrastructure & standards

Prepare tech & media manpower, and segments of society to be digitally-ready

REGULATOR & PROTECTOR

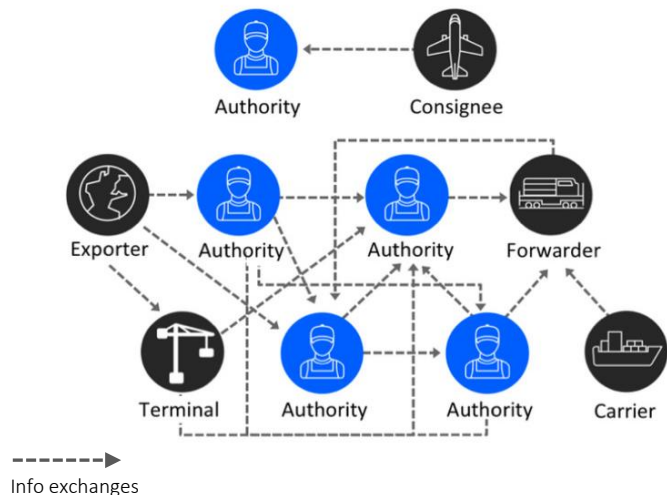


Ensure resilient telecom & broadcast networks

Govern market conduct and protect consumer interest through infocomm, media, postal and data protection regulation

DIFFICULTIES WITH PAPER IN CROSS BORDER TRADE

Current State



Just 1 shipment involves

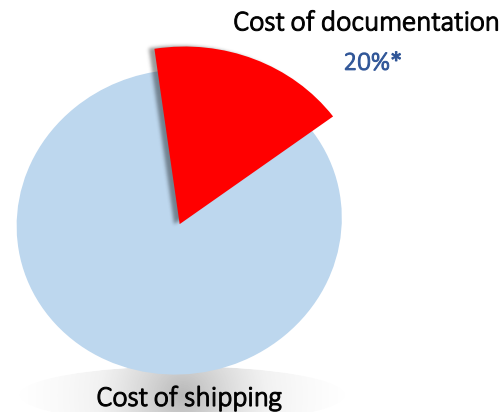
- Many parties across different sectors
- Many exchanges of information
- Many silo systems

Inefficient

- Manual handling
- Vulnerable to fraud

Fragmented Systems

- Costly connections
- No interoperability

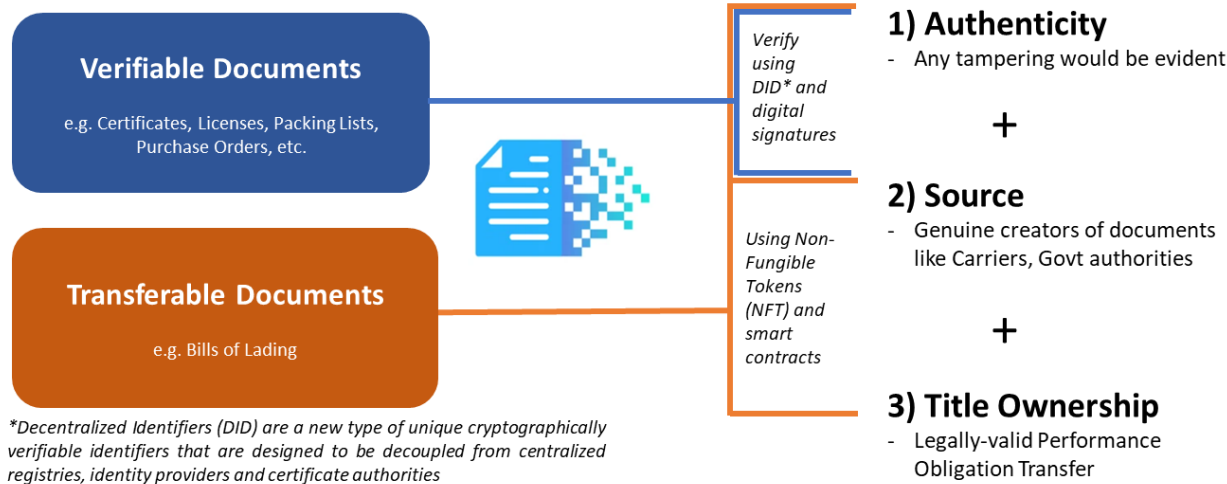


This inefficiency is costly

**Maersk and IBM's Paper Trail Research in 2014*

TRADETRUST'S 3 KEY FUNCTIONALITIES: AUTHENTICITY, SOURCE & TITLE OWNERSHIP FOR TRADE DOCUMENTS

- TT is designed to provide industry the means to verify the authenticity and source of a document, as well as enable the digitalisation of transferable documents into Electronic Transferable Records (ETR) that have the legal ability[^] to effect title transfers.



Core-Tech of TradeTrust

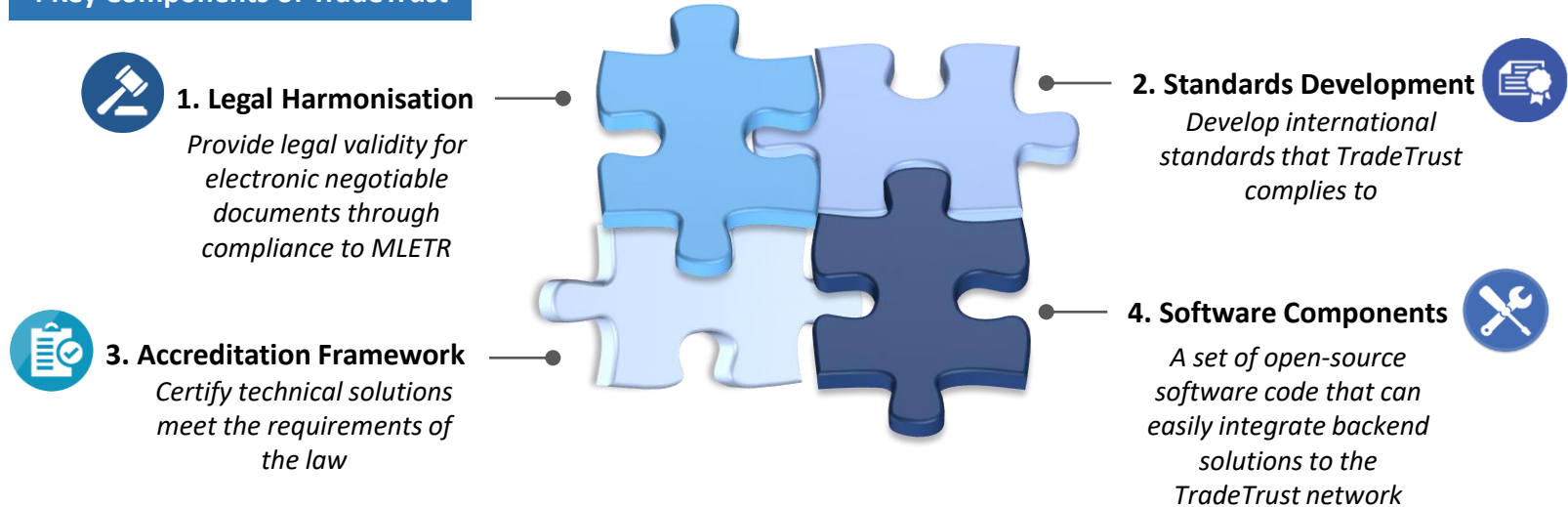
- Uses Decentralised Identifiers (DID) and digital signatures to verify the source and authenticity of documents.
- Uses Blockchain to create Non-Fungible Tokens (NFTs) to represent title ownership and enable transfers from one party to the next.

[^]Singapore's 2021 amendment of its Electronic Transactions Act (ETA), one of the first few internationally, enables the creation and use of ETRs such as electronic Bills of Lading (eBLs), empowering practitioners to reap the benefits of digitalisation more easily.

WHAT IS TRADETRUST?

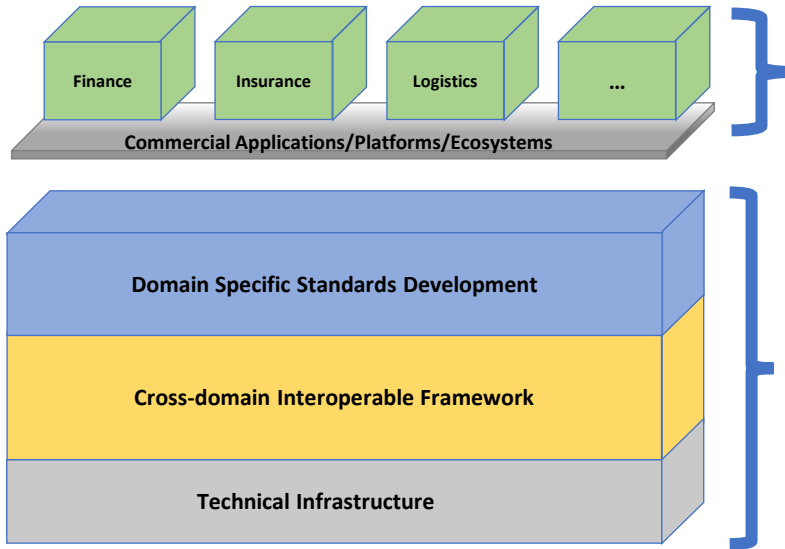
TradeTrust is a framework that comprises **globally-accepted standards** that connect governments and businesses to a **public blockchain** to enable **trusted interoperability** of electronic trade documents **across digital platforms** AND it is offered as a **digital utility**.

4 Key Components of TradeTrust



THE TRADETRUST FRAMEWORK

The Framework **SUPPORTS** Platforms and Systems to achieve the 3 functionalities **ACROSS** Platforms and Systems. The technical methods are implemented in open-source software that has been made freely available to the international community



Business-led

- Digital Ecosystems Co-Development
- Enterprise Adoption & Digitalisation

Govt-led

TradeTrust Framework (Standards, Semantics, Legal)

- To legally recognise cross-border digital documents (e.g. eBL, eCO, einvoice, eSPS Certs, eBills of Exchange)
- To enable system interoperability of trusted digital documents exchange through standards



TradeTrust Digital Infrastructure

- Blockchain gateway that allows business apps to consume blockchain services through standardized APIs, achieving decoupling that eases the burden on them of enhancement and maintenance while blockchain technologies evolve.
- Published as open source for ease of industry adoption and for further enhancements by the open source community
- To be contributed as reference implementation to standards bodies to support standards development and accelerate TradeTrust usage

TRADETRUST DESIGN PRINCIPLES



Public and Permissionless
No central governance authority



Data Off-Chain
Preserves data confidentiality



Payload Agnostic
No data format or standards restrictions



Open-Source
Full transparency for faster adoption



MLETR-Compliant
*Meet the requirements of the law
(for electronic negotiable documents)*

TRADETRUST FRAMEWORK IS ACCESSIBLE TO ALL



DEALING WITH TRANSFERABLE DOCUMENTS (BL AS EXAMPLE)

Paper Transferable Instrument

[illegible]

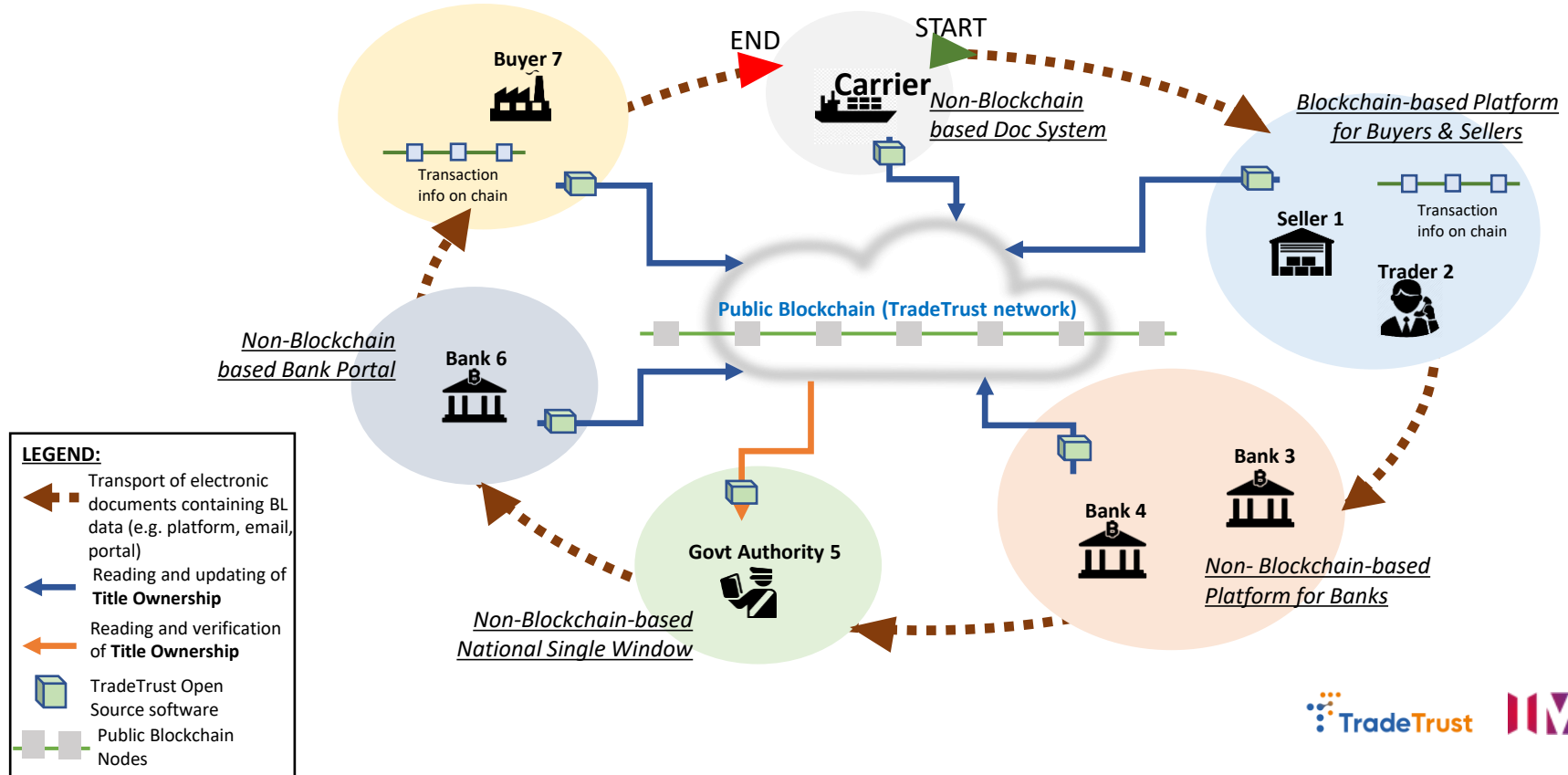
Electronic Transferable Record

1) TITLE ownership

+

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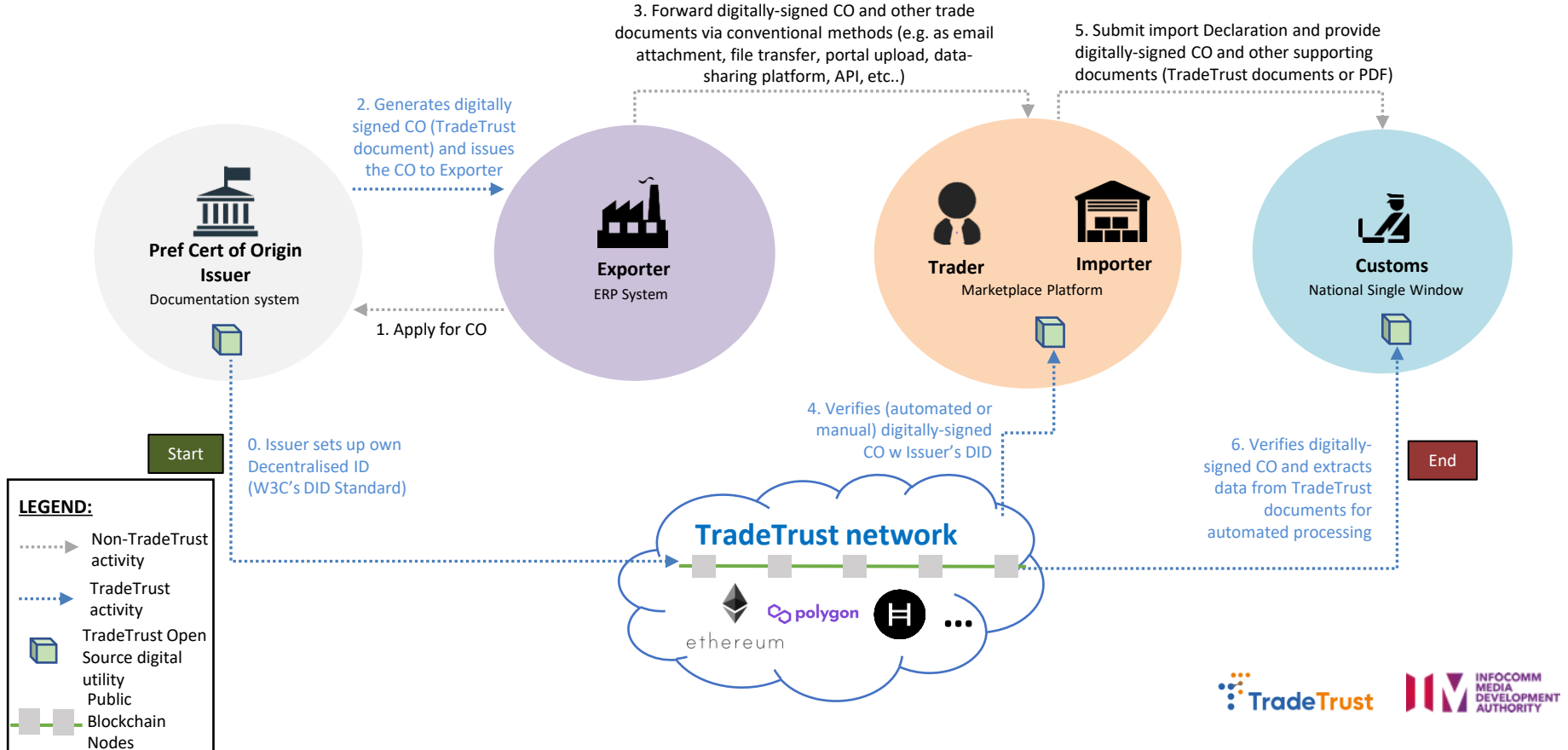
TRANSFERABLE DOCUMENTS' INTEROPERABILITY



How TradeTrust meets MLETR requirements so that TradeTrust eBL is functionally equivalent to Paper BL

| Paper | Electronic | How it is achieved via TradeTrust |
|--|--|--------------------------------------|
| Unique Original Title Document | Singularity <ul style="list-style-type: none"> - Identify that electronic record as the electronic transferable record - Functional equivalent of unique original | Tokenisation (NFT) |
| Possessing that Title Document | Exclusive Control <ul style="list-style-type: none"> - Render that electronic record capable of being subject to control from its creation until it ceases to have any effect or validity - Functional equivalent of possession | Smart Contract |
| Endorsement chain on that Title Document | Integrity <ul style="list-style-type: none"> - Retain the integrity of that electronic record | Cryptographic hash and Public Ledger |

VERIFIABLE DOCUMENTS' INTEROPERABILITY



GLOBAL PARTNERSHIPS



World's first digital trade financing pilot between
MLETR-harmonised jurisdictions



Media release

This is a joint media release between the Australian Border Force, IMDA Singapore and Singapore Customs



SWIFT and Singapore's IMDA Join Forces to Drive Global Trade Digitalisation

TRADE, 5 OCTOBER 2020

Collaboration combines the reach, scale and reliability of SWIFT with IMDA's efforts on technology and legal frameworks to accelerate trade digitalisation

Australia and Singapore's blockchain trial shows promising results for reducing transaction costs



UOB leads IMDA's pilot on digitalising cross-border trade flows between Singapore and China using blockchain framework, TradeTrust

Successful pilot demonstrates significance of electronic bills of lading with turnaround time reduced from a few days to within an hour



Singapore and Rotterdam successfully complete trial with electronic bill of lading

12 May 2021

Singapore and the Netherlands have collaborated since 2019 to explore electronic bills of lading (eBL) on the Europe-Far East trade lane where Singapore and Rotterdam are two major transshipment ports. This trial demonstrated that an eBL issued by one platform could be verified and processed by another digital trade platform.



Media Release

EMBARGOED TILL 1300HR GMT+8, 18 October 2021

Four New MOUs Signed at the 2nd Singapore – China (Shenzhen) Smart City Initiative Joint Implementation Committee Meeting To Accelerate Digital Economy Collaborations

Three Successful Digital Cross-Border Trade Trials Completed: Businesses Will Be Able To Benefit from Faster and More Secured Transactions

JAN 2020 MOI TO FURTHER DIGITALISATION IN TRADE



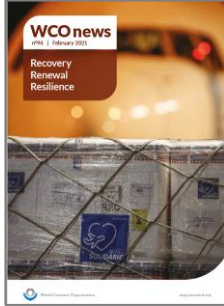
PLATFORM PROVIDERS



CHARTING GROWING INTEREST WITH NOTABLE INSTITUTIONS GLOBALLY



WORLD CUSTOMS ORGANIZATION



<https://mag.wcoomf.org/magazine/wco-news-94/tradetrust-accelerating-the-digitalization-of-international-trade>



WORLD TRADE ORGANIZATION



www.wto.org/english/res_e/publications_e/wtolect22_e.htm



www.weforum.org/agenda/2017/02/blockchain-air-trade-trust-transparency



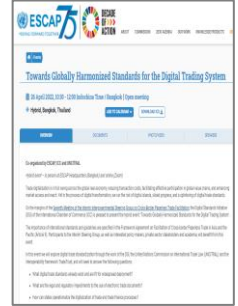
<https://iccwbo.org/publication/standards-toolkit-for-cross-border-paperless-trade>



www.tradefinanceglobal.com/posts/fintrade-tradetrust-interoperability-framework-road-to-achieving-cross-border-paperless-trade



unece.org/sites/default/files/2022-06/010_Verifiable-Credentials-CBT.pdf



www.unescap.org/events/2022/towards-globally-harmonized-standards-digital-trading-system

THE BUSINESS TIMES



www.businesstimes.com.sg/opinion/the-brave-new-world-of-electronic-transferable-trade-documents

THE BUSINESS TIMES



www.businesstimes.com.sg/opinion/singapore-at-the-helm-of-digital-trade

FT FINANCIAL TIMES



www.ft.com/content/05504fcb-11e6-47a0-8860-7d156d182ab

BLACKSTONE & GOLD



www.blackstonegold.com/bt-the-brave-new-world-of-electronic-transferable-trade-documents



CALL TO ACTION

1) Join us to co-create TradeTrust Proofs of Value

If you're from:

- a) Shipping lines
- b) Shippers/Consignees
- c) Logistics Service Providers
- d) Financial Institutions providing Trade Financing Service
- e) Govt Authorities involved in cross-border matters

2) Incorporate TradeTrust code into your Applications

If you're from:

- a) Tech Companies
- b) Platform Providers

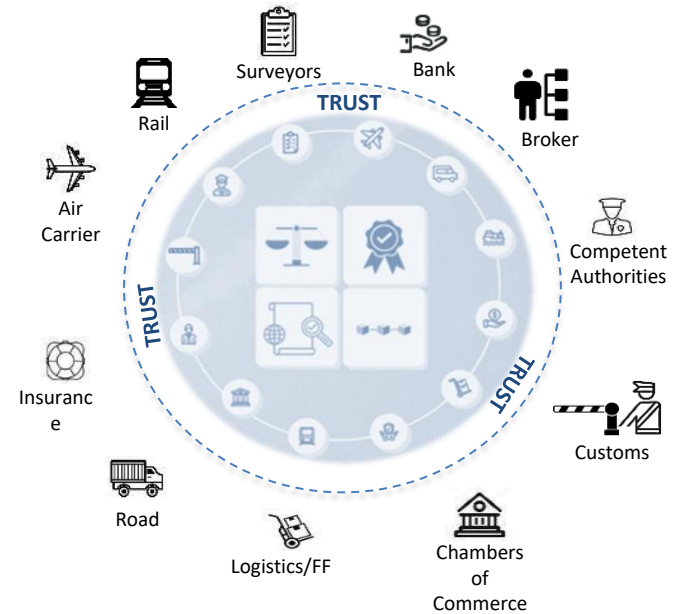
Useful URLs:

Reference Implementation Website: <https://tradetrust.io/>

Docs: <https://docs.tradetrust.io/>

Source code: <https://github.com/TradeTrust>

For more info, contact us at: tradetrust@imda.gov.sg



THANK YOU



**INFOCOMM
MEDIA
DEVELOPMENT
AUTHORITY**